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NOTICE OF GROUND OF REJECTION

Applicant : ULVAC COATING CORPORATION
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Pat. Appln. No. : 10-2001-7003214
Title of the Invention : Phase Shifter Film and Production Method Therefor

This is to notice, under the provision of Article 63 of the Patent Law, that the grounds for rejection as specified below are found as a result of examination of the present application. If the applicant has any argument or wishes to make amendments, please file a response or an amendment by January 18, 2003. (The due date is extensible one month at a time. Any notification acknowledging such extension will not be issued.)

Grounds

The invention as specified by the claims 1 to 65 of the present application could have been readily made by a person skilled in the art before the filing of the present application from the references specified below. Accordingly, a patent cannot be granted thereto under the provision of Paragraph 2 of Article 29 of the Patent Law.

Remarks

Claims 1-65 of the present application is characterized in that the phase shift film is manufactured through a series of processes by an apparatus including means for separating (or mixing) a reactive gas and an inert gas. The invention, however, can be readily made, without any difficulty in technical structure and method, based on: the method described in Japanese Patent Laying-open No. 11-21669 (Reference 1) in which, through the step of controlling flow rate of reactive gas and inert gas for sputtering, two, separated first and second films are formed at the time of film formation to form a compound barrier film; a low pressure sputtering apparatus described in Japanese Patent Laying-open No. 8-127870 (Reference 2) for attaining good embedding characteristic in porous structure and for making uniform film thickness on a substrate surface, through the

method of forming a titanium nitride thin film by introducing a reactive gas (nitrogen gas and argon gas) under vacuum; a phase shift photo mask described in Japanese Patent Laying-open No. 8-262688 (Reference 3) having good optical characteristic and pattern accuracy obtained through side etching at a low rate; and a phase shift mask and a method of manufacturing a blank used therefor, described in Japanese Patent Laying-open No. 6-258817 (Reference 4), which mask is manufactured by heat-treating a silicon oxide raw film in inert gas atmosphere with reduced pressure to form a phase shift layer. Accordingly, a patent cannot be granted thereto.

[Appendix]

Appendix 1: Japanese Patent Laying-open No. 11-021669 (1999.01.26)

Appendix 2: Japanese Patent Laying-open No. 08-127870 (1996.05.21)

Appendix 3: Japanese Patent Laying-open No. 08-262688 (1996.10.11)

Appendix 4: Japanese Patent Laying-open No. 06-258817 (1994.09.16)

Patent Office Examination division 4,

Examiner